Message

From: Ohl, Matthew [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5BDE479F1AB54A9EBC9541A7D452C3B7-MOHL]

Sent: 5/6/2022 10:50:34 AM

To: Urban, Amanda [urban.amanda@epa.gov]
Subject: FW: Third Site DNAPL Cell delineation plan

From: Ohl, Matthew

Sent: Friday, May 6, 2022 6:50 AM

To: Julie Konzuk < JKonzuk@Geosyntec.com>

Cc: Norman Bernstein <nwbernstein@nwbllc.com>; pracher@psrb.com; Gary Wealthall <GWealthall@Geosyntec.com>;

Andrew A Gremos <agreenos@ramboll.com>

Subject: RE: Third Site DNAPL Cell delineation plan

Julie,

Thank you for the update on your progress. We will look forward to reviewing the Third Site DNAPL Cell delineation plan on Monday, June 6, 2022.

Thank you,

Matt

Matthew J. Ohl Remedial Project Manager United States Environmental Protection Agency 77 West Jackson Boulevard, SR-6J Chicago, IL 60604-3590

phone: 312.886.4442 fax: 312.692.2447

e-mail: ohl.matthew@epa.gov

From: Julie Konzuk < JKonzuk@Geosyntec.com>

Sent: Thursday, May 5, 2022 9:21 AM

To: Ohl, Matthew <ohl.matthew@epa.gov>

Cc: Norman Bernstein < nwbernstein@nwbllc.com >; pracher@psrb.com; Gary Wealthall < GWealthall@Geosyntec.com >;

Andrew A Gremos agremos@ramboll.com>

Subject: RE: Third Site DNAPL Cell delineation plan

Matt,

We would like to request a 30-day extension on the deadline below. We have been working to draft the changes to the work plan as requested, but need a bit more time to get through the approvals stage with the technical committee in amongst travel this month.

Please let us know if you have any concerns.

Regards,

Julie

Julie Konzuk, Ph.D., P.Eng. (ON) Senior Principal Geosyntec Consultants International, Inc.

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From: Ohl, Matthew < ohl.matthew@epa.gov>

Sent: Friday, April 8, 2022 1:58 PM

To: Julie Konzuk < JKonzuk@Geosyntec.com>

Cc: Gary Wealthall <<u>GWealthall@Geosyntec.com</u>>; Norman Bernstein <<u>nwbernstein@nwblic.com</u>>; Peter M. Racher Esq. <<u>pracher@psrb.com</u>>; Krueger, Thomas <<u>krueger.thomas@epa.gov</u>>; Andrew A Gremos <<u>agreemos@ramboll.com</u>>; Urban, Amanda <<u>urban.amanda@epa.gov</u>>; Knox, Corey S CIV (USA) <<u>Corey.S.Knox@usace.army.mil</u>>; Clabaugh, William B CIV USARMY CELRL (USA) <<u>William.B.Clabaugh@usace.army.mil</u>>; Grimm, Jennifer J CIV USARMY CEHNC (USA) <Jennifer.J.Grimm@usace.army.mil>; Neighbors, Katie <kneighbo@idem.IN.gov>

Subject: RE: Third Site DNAPL Cell delineation plan

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Good afternoon Julie:

Thank you for submitting the delineation plan. Please revise the plan in accordance with the following comments and resubmit it for review and approval by May 9, 2022.

Thank you,

Matt

Matthew J. Ohl Remedial Project Manager United States Environmental Protection Agency 77 West Jackson Boulevard, SR-6J Chicago, IL 60604-3590

phone: 312.886.4442 fax: 312.692.2447

e-mail: ohl.matthew@epa.gov

Please see the attached figure we used as reference.

The newly proposed wells are 20-30 feet from the previous locations. Other PSGS locations are spaced about 10 feet apart. The distribution of the contamination and the spacing of the locations may miss some of the contaminant mass south of wells PSGS-15 and PSGS-16. Vertical delineation is needed below PSGS-15 and PSGS-16 in the center of the cell. The previously discussed PSGS-15R should be included in this work plan.

Relevant information on monitoring well and soil borings into the lower till outside of the DNAPL cell area should be used when updating the CSM after this investigation. This data can help inform the extent of dissolved phase contamination in this depth area, determine presence and/or continuity of sand stringers, and generally assist with determining if the lower till is a source of mass flux into the dissolved phase plume.

The work plan should include contingency step-out (both vertically and horizontally) borings to avoid delays and additional mobilizations if data gaps still exist.

PSGS-17 was previously installed and soil data is connected to the installation of the original PSGS-17 so we cannot reuse the number. As the new PSGS-17 is not a replacement, it should be labeled separately (new wells PSGS-18 through PSGS-20).

Other hydraulic profiling tools (HPT/EC) should be evaluated and considered to support meeting Objective 2 of this memorandum. "Evaluate the extent of the sand stringer(s) in the deeper Lower Till (encountered between 44 to 46 ft bgs) and estimate the permeability of the Lower Till unit within this sand stringer. It is difficult to interpret extent of the sand stringers from the boring logs alone, so HPT could be a useful additional line of evidence. During deployment, the HPT creates real time depth profiles of EC and pressure (derived by measuring the pressure required to inject a set flow of water). These profiles may help delineate the extent of the "sand stringer(s)" (isolated or continuous) within the Lower Till due to anticipated differences in conductivity (coarser grained materials generally have less conductive materials [e.g., silica sands]/ lower measured conductivity) and injection pressure (coarser grained materials would have higher permeability/ lower injection pressure). Note, as with any indirect technique, a few correlation borings would be needed to verify lithologic interpretation. Here is a link with additional information: https://asct-1.itrcweb.org/3-6-hydraulic-and-groundwater-profiling-tools/?print=pdf

Cross sections that connect the DNAPL cells with dissolved phase plumes, including topography of the lower till should be included in this effort to develop the CSM. It is not clear from the information provided whether vertical delineation may be needed outside the DNAPL cell in the footprint of the ERH treatment area. It would be best to be prepared to collect the data necessary for vertical delineation. Once cross sections are provided that illustrate the current overall CSM (DNAPL cell, dissolved phase plumes, lithology, etc.), it should be clearer whether vertical delineation outside the cell is needed. It would be beneficial to have overall CSM cross sections pre-supplemental investigation.

From: Julie Konzuk < <u>JKonzuk@Geosyntec.com</u>>

Sent: Friday, February 25, 2022 3:47 PM **To:** Ohl, Matthew <<u>ohl.matthew@epa.gov</u>>

Cc: Gary Wealthall GWealthall@Geosyntec.com; Norman Bernstein nwbernstein@nwblc.com; Peter M. Racher Esq. csq. csq. <a href="mailto:com; Andrew A Gremos agremos@ramboll.com; Hauber, Erin M CIV USARMY CEHNC (USA) Erin.M.Hauber@usace.army.mil; Knox, Corey S CIV (USA) Corey.S.Knox@usace.army.mil; Clabaugh, William B CIV USARMY CEHNC (USA) Jennifer.J.Grimm@usace.army.mil; Neighbors, Katie kneighbo@idem.IN.gov

Subject: Third Site DNAPL Cell delineation plan

Matt,

As discussed last week during our call, please find attached a work plan for implementing the discussed delineation of soil and groundwater impacts deep within the southwestern corner of the DNAPL Cell. Please let me know if you have any questions or concerns, and we look forward to your approval to proceed.

Regards,

Julie

Julie Konzuk, Ph.D., P.Eng. (ON)

Senior Principal
Geosyntec Consultants International, Inc.

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